ABSTRACT OF THE DISCLOSURE

An object detection apparatus and method capable of detecting objects based on visual images captured by a self-moving unit. A sequential images

5   output section makes a train of a first input image and a second input image sequential to the first input image and outputs said train. A local area image processor calculates local flows based on said first input image and said second input image. An inertia information acquiring section measures self-motion of the unit to calculate inertia information thereof. A global area image processor

10   uses said inertia information to estimate global flow, which is a motion field of the entire view associated to the self-motion, using said global flow and said first input image and creates a predictive image of said second input image. The global area image processor then calculates differential image data, which is a difference between said predictive image and said second input image. A

15   figure-ground segregation section uses said differential image data to refine said local flows and compares the refined local flows with a predetermined threshold value to extract a figure candidate area, which is the area having a high probability of an object existing in the input image. An object presence/absence determination section determines presence/absence of objects in said figure

20   candidate area.